In the United States Patent and Trademark Office

In re the Application of:

Leigh Allen Williamson	)	
Serial Number: 09/902,694	)	Group: 2157
Docket Number: AUS920010324US1	)	Examiner: Gregory G. Todd
Filed on: 07/12/2001	)	
For: "Pluggable URL Providers in a J2EE Server"	)	

REVISED APPEAL BRIEF

(First Reinstatement)

Real Party in Interest per 37 CFR §41.37(c)(1)(i)

The subject patent application is owned by International Business Machines Corporation of Armonk, NY.

Related Appeals and Interferences per 37 CFR §41.37(c)(1)(ii)

None.

Status of Claims per 37 CFR §41.37(c)(1)(iii)

Claims 1 - 15 were finally rejected in an Office Action dated October 3, 2005. Appellants appealed the rejections. Subsequent to consideration of the first Appeal Brief, examination was reopened and claims 1 - 15 were non-finally rejected. The rejections of Claims 1 - 15 are hereby Appealed.

Status of Amendments after Final Rejections per 37 CFR §41.37(c)(1)(iv)

No amendments to the claims have been submitted or entered after final rejections.

Summary of the Claimed Subject Matter per 37 CFR §41.37(c)(1)(v)

This invention provides pluggable Uniform Resource Locator ("URL") protocol providers in a JAVA Version 2 Enterprise Edition ("J2EE") application server in an extensible manner, where the set of URL protocol handlers in existing application servers is relatively fixed or limited. As such, it is a server-specific invention (e.g. it has no applicability to client devices).

More specifically, independent claim 1 is directed towards a method of:

(a) providing one or more extension URL providers on an application server, said extension URL providers each having a specified name, description, supported protocol and stream handler class name, and classpath (pg. 15 lines 3 - 15; fig. 3 #31 - 34);

(b) binding a reference to one or more extension URL objects into a global namespace on said application server (pg. 15, lines 19 - 20; fig. 3 #36);

(c) registering said extension URL providers to be used by an application program in a table of parameter sets having a protocol identifier and a stream handler class identifier (pg. 16, lines 3 - 9; fig. 4 #42 - 43);

(d) overriding said default URL stream handler to enable an extension URL stream handler (pg. 16, lines 12 - 17; fig. 4 #47 - 49); and

(e) binding one or more extension URL objects into an application server namespace (pg. 16 lines 10 - 11; fig. 4 #44) such that said registered extension URL providers and extension URL objects are available to and for use by an application program through an application server naming service.

Independent claim 5 claims a computer-readable medium encoded with software for performing the method corresponding to Claim 1 as follows:

(a) provide one or more extension URL providers on an application server, said extension URL providers each having a specified name, description, supported protocol and stream handler class name, and classpath (pg. 15 lines 3 - 15; fig. 3 #31 - 34);

(b) bind a reference to one or more extension URL objects into a global namespace

on said application server (pg. 15, lines 19 - 20; fig. 3 #36);

(c) register said extension URL providers to be used by an application program in a table of parameter sets having a protocol identifier and a stream handler class identifier (pg. 16, lines 3 - 9; fig. 4 #42 - 43);

(d) override said default URL stream handler to enable an extension URL stream handler (pg. 16, lines 12 - 17; fig. 4 #47 - 49); and

(e) bind one or more extension URL objects into an application server namespace (pg. 16 lines 10 - 11; fig. 4 #44) such that said registered extension URL providers and extension URL objects are available to and for use by an application program through an application server naming service.

Independent Claim 9 claims a system for achieving the same objectives, comprising:

(a) one or more extension URL providers on an application server, said extension URL providers each having a specified name, description, supported protocol and stream handler class name, and classpath (pg. 15 lines 3 - 15; fig. 3 #31 - 34);

(b) a registry of said URL providers comprising a table having a parameter set for each URL provider, said parameter set comprising a protocol identifier and a stream handler class identifier (pg. 16, lines 3 - 9; fig. 4 #42 - 43);

(c) a default URL stream handler factory overrider adapted to replace said default URL stream handler factory with a extension URL stream handler factory (pg. 16, lines 12 - 17; fig. 4 #47 - 49); and

(d) one or more bound references for of one or more URL objects into an application server namespace (pg. 16 lines 10 - 11; fig. 4 #44) such that said registered URL providers and URL objects are available to an application program via an application server naming service.

Grounds for Rejection For Which Review is Sought per 37 CFR §41.37(c)(1)(vi)

Review by the Board of the rejections of Claims 1 - 12 under 35 U.S.C. §103(a) as being unpatentable over single reference US Patent 6,763,395 to Austin (hereinafter "Austin") in view of US Patent 6,842,906 to Bowman-Amuah (hereinafter "Bowman-Amuah"), and of the rejections of Claims 13 - 15 under 35 U.S.C. §103(a) as being unpatentable over Austin in view of Bowman-Amuah in further view of US Published Patent Application 2002/0104071 to Charisius (hereinafter "Charisius").

Arguments per 37 CFR §41.37(c)(1)(vii)

Rejections of Claims 1 - 12 over Austin in view of Bowman-Amuah

Appellants respectfully submit that no *prima facie* case of obviousness has been properly established because the following errors in examination have occurred:

(a) one of the cited references, Austin, teaches away from the proposed combination *vis-a-vis* server-based implementations of their invention, therefore there could be no motivation to modify the reference as proposed in the rationale for the rejections; and

(b) as such, the references taken individual fail to teach all of the claimed elements, steps, and limitations, and thus fail to support a *prima facie* case of obviousness.

A Prima Facie Case of Obviousness Cannot be Established When At Least One Relied-Upon Reference Teaches Away from the Claims or From Combination with Another Relied-Upon Reference. Case law, and the MPEP, clearly establish that when one of the references employed in a combination proposed to render claims obvious under 35 U.S.C. 103(a), there can be no *prima facie* case of obviousness because there is would have been no motivation by one ordinarily skilled in the art to make such a combination against the teachings of any of the references.

As such, statements in a reference which teach away are not evidence to be weighed against other evidence supporting obviousness, but such statements amount to a bar against establishment of any modification or combination which involves the reference.

For example, in the patent law text "Patent Practice: Practice & Procedure Before the U.S. Patent Office", Third Edition, by Irah H. Donner (copyright 2003, Bureau of National Affairs), acclaimed in the Foreword by Q. Todd Dickinson, Former Director of the United States Patent and Trademark Office as "[c]arefully updated and exhaustive in its treatment, this work continues to impress", Mr. Donner comments that an "[i]nvention [is] not obvious where one prior art reference taught away from combination with [a] second prior art reference":

> "An invention was held not obvious where one prior art reference taught away from the combination with a second prior art reference. In *In re Rudko* [Civ. App. No. 98-1505 (Fed. Cir. May 14, 1999)(unpublished)], the invention related to a handpiece for a

> laser sugfical scalpel adapted for use in a surgical procedure . . .
>
> The Examiner rejected certain claims as obvious under Section 103(a) over a parimary reference . . . in view of a secondary reference . . .
>
> . . . The Board sustained the rejections based on the combination . . .
>
> On appeal, the Federal Circuit reversed. Rudko contended that the Board clearly erred in combining the [cited] Sharon and McFee references. Rudko argued that it was improper to combine Sharon with McFee because Sharon tuaght away from the flared end shown in McFee's second embodiment. . . .
>
> The Federal Circuit agreed with Rudko, noting that using the cited reference along, one of ordinary skill in the art would not have been motivated to combine the flared, enlarged end disclosed in the McFee patent with Sharon's tapered laser scalpel. The Federal Circuit emphaised that Sharon tuaght away from the proposed combination with McFee. . . . " (Donner, pp. 798 - 799)

Clearly from *In re Rudko*, only one of the references in the proposed combination must teach away to bar establishment of a combination or modification employing that reference under Section 103(a). Austin, as established in Appellants' previous Appeal Brief, teaches away from the Examiner's proposed combination.

The historical position of the courts towards evidence of nonobviousness by "teaching away" of the references is instructive in applying the case law to a specific set of claims. In 1966, the Supreme Court held in *U.S. v. Adams*, 383 U.S. 39, 148 USPQ 479 (1966), that an important indicum of nonobviousness is "teaching away" from the claimed invention by the prior art.

However, this position was later strengthened to more than just an important indicator of non-obviousness to being a block or bar to establishing a *prima facie* case of obviousness under 35 U.S.C. §103(a) by the Federal Circuit. For example, another well-known patent law text "Patent Practice", Vol. 1, Eighth Edition, by Irving Kayton, states:

> " . . . It is now, in everyday practice, unnecessary to submit rebuttal evidence when the reference used to reject the claim teaches away from the limitation, or is silent on it and other art teaches away.
>
> In short, teaching away is the antithesis of the art's suggesting that the person of ordinary skill go in the claimed direction. Essentially, teaching away from the art is *per se* demonstration of lack of *prima facie* obviousness. *In re Dow Chemical Co.,* 837 F.2d 469, 5 USPQ2d 1529 (Fed. Cir. 1988); *In re Fine,* 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir.

1988); *In re Nielson*, 816 F.2d 1567, 2 USPQ2d 1525 (Fed. Cir. 1987). " (Kayton, pp. 5.38 - 5.39)

Austin teaches away from the three-tiered, server-implentation as proposed by the Examiner and as rebutted by the Appellants in the initial Appeal Brief (see following paragraphs for supporting citations from Austin's disclosure).

Further, the Patent Office has recognized that "teaching away" may also take the form of one reference teaching away from combination with the second reference, as opposed to teaching away from the claims themselves. Specifically, at MPEP §2145 X.D.2, the Office procedure is:

> **2. References Cannot Be Combined Where Reference Teaches Away from Their Combination**
>
> It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983) (The claimed catalyst which contained both iron and an alkali metal was not suggested by the combination of a reference which taught the interchangeability of antimony and alkali metal with the same beneficial result, combined with a reference expressly excluding antimony from, and adding iron to, a catalyst.).

Errors in examination, therefore, include failing to follow relevant case law as well as Office examination procedures. Appellants respectfully submit that Austin cannot be combined with Bowman-Amuah as proposed, and thus no *prima facie* case of obviousness under 35 U.S.C. §103(a) has been established.

Austin Teaches Away from Combination in view of Bowman-Amuah. In the Office Action dated March 22, 2007, in which prosecution was re-opened, the Examiner has agreed that "Austin does note explicitly teach the use of an application server" (pg. 4, ln. 5). Consequently, the Examiner provided the Bowman-Amuah reference as evidence that use and advantages of using such a server were well known to one skilled in the art at the time of the invention.

Appellants respectfully submit that the teachings of Bowman-Amuah regarding server-implementations are moot because Austin teaches away from such an implementation, and thus Austin cannot be combined or modified in the proposed manner, regardless of the teachings of Bowman-Amuah. Bowman-Amuah's disclosure cannot overcome or out-weigh the "teaching

away" statements of Austin, as clearly established in case law (see foregoing paragraphs) that only one of the references must teach away from the claims or from the other references in order to establish nonobviousness.

The Examiner has not established that Bowman-Amuah teaches all of the claimed elements, steps, and limitations of Appellants' invention. Further, the Examiner has agreed that Austin fails to teach all of the claim elements, steps, and limitations. As such, neither the Bowman-Amuah reference or the Austin reference, considered alone, renders the Appellants' claims obviouness. And, because Austin teaches away from modification to a server-side implementation, Austin combined with Bowman-Amuah is an improper grounds of rejection and fails to establish a *prima facie* case of obviousness under Section 103(a).

Appellants have argued that Austin teaches away from server-based implementations, which we have claimed. For example, Austin clearly states (emphasis added by Appellant):

> ... Advantageously, users may connect to a data source and view live data from the data source in a manner similar to connecting to a traditional web HTTP server and viewing a web page, **but without interacting with an HTTP server at any point**. (Austin's Abstract, emphasis added)

and, further:

> ... Advantageously, users may connect to a data source and view live data from the data source in a manner similar to connecting to a traditional web HTTP server and viewing a web page, **but without interacting with an HTTP server at any point.** ... (Col. 2 lines 63 - 67, emphasis added)

and still further:

> In step 308, the data viewer component 204 connects to the data source identified by the URL and retrieves data from the data source. As illustrated in FIG. 4, the viewer component 204 may connect to a data source 212 via a network 208 such as a LAN, WAN, the Internet, etc. The viewer component 204 may also connect to a data source 212 which is included in the same computer system that is running the user agent or is

> attached to the computer system via a mechanism other than a network, e.g. an attached instrument or device as described with reference to FIG. 2. In the preferred embodiment, the data viewer may connect or couple to the data source **without connecting to a web server and without utilizing any web server protocols**. (Col. 9 line 58 - col. 10 line 3, emphasis added)

additionally stating:

> The method of claim 1, wherein said connecting to the measurement device specified by the URL **does not include connecting to a web server.** (Austin's Claim 12, emphasis added)

and, even still further:

> The method of claim 58, wherein the data viewer connects to the data source specified by the URL **without connecting to a web server**. (Austin's Claim 64, emphasis added)
>
> . . .
>
> The method of claim 58, wherein the data viewer connects to the data source specified by the URL **without utilizing standard web server protocols**. (Austin's Claim 65, emphasis added)

Applicant respectfully submits that Austin was communicating an undesirability of connecting to a server and using server protocols by so many explicit statements against such methods. Such desirability must be found in the cited art, not in the applicant's disclosure, per MPEP § 2143.01.

In the rationale for the rejections, the Examiner has emphasized that Austin "teaches at least the user agent *communicating* with an HTTP server" (emphasis added by applicant). However, the proposed combination does not only *communicate* with an HTTP server, the proposed combination relocates or re-allocates functionality from the client to the server in order to meet the elements, steps, and limitations of the claims. Thus, Appellants respectfully submit that the Examiner's counter argument does not support the rejection.

In the Office Action, the Examiner has further stated that "Bowman clearly outlines the disadvantages of such a model (at least col. 33, lines 24 - 43) in that the client has too heavy a

burden, and as such a three-tiered model with an application server is advantageous for performing the application load." (pg. 4, lines 15 - 18). On review of the extensive Bowman disclosure, amounting to approximately 280 pages total, including the cited portions, Bowman-Amuah fails to disclose the claim elements, steps, and limitations for which the Austin disclosure was relied upon in the rationale.

Because Austin cannot be combined with Bowman, and it has not been established that anywhere in Bowman's 279 pages of disclosure Appellants' claims are fully taught, Appellants respectfully submit that the rejections are improper and should be reversed.

Rejections of Claims 13 - 15 over Austin in view of Bowman-Amuah in further view of Charisius

In the rationale for the finale rejections of Claims 13 - 15, the examiner reasoned that as Austin in view of Bowman-Amuah failed to teach or suggest our invention as implemented on a J2EE server, but that US Patent Application 2002/0104071 to Charisius provides such teaching. It was reasoned that it would have been obvious to modify Austin to employ the J2EE server teachings of Charisius. It was not reasoned, or supported, that Charisius considered alone teaches all of Appellants claim elements, steps, and limitations, whereas the proposed Austin-Bowman-Amuah combination was relied upon for certain teachings.

Charisius is directed towards software development tools, and provides no teaching regarding pluggable URL providers as Appellants have claimed. Thus, the rationale for the rejections of Claims 13 - 15 depend on the teachings of Austin in view of Bowman-Amuah to meet the claim limitations of the independent claims from which Claims 13 - 15 depend.

For the reasons stated in the foregoing paragraphs, Austin in view of Bowman-Amuah fails to teach all of the claimed steps, elements, and limitations, and thus Austin in view of Bowman-Amuah in further view of Charisius fails to teach the same claimed steps, elements and limitations.

For these reasons, reversal of all rejections is respectfully requested.

Respectfully,

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Claims Appendix

per 37 CFR §41.37(c)(1)(viii)

Clean Form of Amended Claims

Claim 1 (original):

A method of providing an extension to a default set of resource functions in an enterprise application server, said application server having a default Universal Resource Locator (URL) stream handler factory class, said method comprising the steps of:

providing one or more extension URL providers on an application server, said extension URL providers each having a specified name, description, supported protocol and stream handler class name, and classpath;

binding a reference to one or more extension URL objects into a global namespace on said application server;

registering said extension URL providers to be used by an application program in a table of parameter sets having a protocol identifier and a stream handler class identifier;

overriding said default URL stream handler to enable an extension URL stream handler; and

binding one or more extension URL objects into an application server namespace such that said registered extension URL providers and extension URL objects are available to and for use by an application program through an application server naming service.

Claim 2 (original):

The method as set forth in Claim 1 further comprising the steps of:

executing a computer instruction by an application program to lookup a resource object by a resource name via an application server naming service; and

retrieving a bound and registered extension URL object according to said resource name.

Claim 3 (previously presented):

The method as set forth in Claim 1 wherein said step of providing one or more extension URL providers includes specifying a classpath as a location of a jar file.

Claim 4 (original):

The method as set forth in Claim 1 wherein said step of overriding said default URL stream handler is performed by executing a Java function to set the application server's URL Stream Handler Factory to said extension URL stream handler.

Claim 5 (original):

A computer readable medium encoded with software for providing an extension to a default set of resource functions in an enterprise application server, said application server having a default Universal Resource Locator (URL) stream handler factory class, said software when executed by an application server to perform the following steps:

provide one or more extension URL providers on an application server, said extension URL providers each having a specified name, description, supported protocol and stream handler class name, and classpath;

bind a reference to one or more extension URL objects into a global namespace on said application server;

register said extension URL providers to be used by an application program in a table of parameter sets having a protocol identifier and a stream handler class identifier;

override said default URL stream handler to enable an extension URL stream handler; and

bind one or more extension URL objects into an application server namespace such that said registered extension URL providers and extension URL objects are available to and for use by an application program through an application server naming service.

Claim 6 (original):

The computer-readable medium as set forth in Claim 5 further comprising software for performing the steps of:

executing a computer instruction by an application program to lookup a resource object by a resource name via an application server naming service; and

retrieving a bound and registered extension URL object according to said resource name.

Claim 7 (previously presented):

The computer-readable medium as set forth in Claim 5 wherein said software for providing one or more extension URL providers includes software for specifying a classpath as a location of a jar file.

Claim 8 (original):

The computer-readable medium as set forth in Claim 5 wherein said software for overriding said default URL stream handler is comprises software for executing a Java function to set the application server's URL Stream Handler Factory to said extension URL stream handler.

Claim 9 (original):

An extensible Universal Resource Locator (URL) resource system for an enterprise application server, said enterprise application server having a default set of resource functions in an enterprise application server and a default Universal Resource Locator (URL) stream handler factory class, said extensible URL resource system comprising:

one or more extension URL providers on an application server, said extension URL providers each having a specified name, description, supported protocol and stream handler class name, and classpath;

a registry of said URL providers comprising a table having a parameter set for each URL provider, said parameter set comprising a protocol identifier and a stream handler class identifier;

a default URL stream handler factory overrider adapted to replace said default URL stream handler factory with a extension URL stream handler factory; and

one or more bound references for of one or more URL objects into an application server namespace such that said registered URL providers and URL objects are available to an application program via an application server naming service.

Claim 10 (original):

The extensible Universal Resource Locator (URL) resource system as set forth in Claim 9 further comprising:

a lookup facility for looking up a resource object by a resource name for use by an application program; and

a URL object retriever adapted to retrieve a bound and registered URL object according to said looked-up resource name.

Claim 11 (previously presented):

The extensible Universal Resource Locator (URL) resource system as set forth in Claim 9 wherein said extension URL providers include a classpath specifying a location of a jar file.

Claim 12 (original):

The extensible Universal Resource Locator (URL) resource system as set forth in Claim 9 wherein said default URL stream handler overrider comprises a Java function to set the application server's URL Stream Handler Factory to said extension URL stream handler.

Claim 13 (previously presented):

The method as set forth in Claim 1 wherein:

said one or more extension URL providers on an application server comprise a provider compatible with or compliant with Java 2 Enterprise Edition (J2EE) specifications;

said step of binding a reference to one or more extension URL objects into a global namespace on said application server comprises binding into a J2EE global namespace;

said step of registering said extension URL providers comprises registering with a J2EE application server;

said step of overriding said default URL stream handler to enable an extension URL stream handler comprises overriding a J2EE URL stream handler; and

said step of binding one or more extension URL objects into an application server namespace comprises binding into a J2EE application server namespace such that said registered extension URL providers and extension URL objects are available to and for use by a J2EE application program through an application server naming service.

Claim 14 (previously presented):

The computer-readable medium as set forth in Claim 5 wherein:

said one or more extension URL providers on an application server comprise a provider compatible with or compliant with Java 2 Enterprise Edition (J2EE) specifications;

said software for binding a reference to one or more extension URL objects into a global namespace on said application server comprises software for binding into a J2EE global namespace;

said software for registering said extension URL providers comprises software for registering with a J2EE application server;

said software for overriding said default URL stream handler to enable an extension URL stream handler comprises software for overriding a J2EE URL stream handler; and

said software for binding one or more extension URL objects into an application server namespace comprises software for binding into a J2EE application server namespace such that said registered extension URL providers and extension URL objects are available to and for use by a J2EE application program through an application server naming service.

Claim 15 (previously presented):

The system as set forth Claim 9 wherein:

said one or more extension URL providers on an application server comprise Java Version 2 Enterprise Edition (J2EE) compliant or compatible URL providers;

said registry of said URL providers comprises a J2EE registry;

said default URL stream handler factory overrider is adapated to replace a default J2EE URL stream handler factory with a extension URL stream handler factory; and

said one or more bound references for of one or more URL objects into an application server namespace comprise J2EE namespace bindings such that said registered URL providers and URL objects are available to a J2EE application program via an application server naming service.

Evidence Appendix

per 37 CFR §41.37(c)(1)(ix)

No evidence has been submitted by applicant or examiner pursuant to 37 CFR §§1.130, 1.131, or 1.132.

Related Proceedings Appendix

per 37 CFR §41.37(c)(1)(x)

No decisions have been rendered by a court or the Board in the related proceedings as identified under 37 CFR §41.37(c)(1)(ii).